

## REMARKS

The present application was filed on January 28, 2004 with claims 1 through 19. Claims 1 through 19 are presently pending in the above-identified patent application. Claims 5-11 are proposed to be amended herein.

In the Office Action, the Examiner objected to claim 7 for failing to end with a period. The Examiner rejected claims 1-4, 7-10 and 12-19 under 35 U.S.C. §101 as being directed to non-statutory subject matter. In addition, the Examiner rejected claims 5-11 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention. The Examiner also noted that claims 6-11 contained subject matter that is optionally recited. The Examiner rejected claim 1, 4, 12, 15-16 and 19 under 35 U.S.C. §103(a) as being unpatentable over Barsalou et al. ("Updating Relational Databases through Object-Based Views") in view of Wang et al. ("Updating XQuery Views Published over Relational Data: A Round-Trip Case Study").

### Formal Objections and Rejections

The Examiner objected to claim 7 for failing to end with a period. Claim 7 has been amended to include a period.

Claims 5-11 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention. Claims 5-11 have been amended in accordance with the Examiner's suggestions to ensure proper antecedent basis.

The Examiner also noted that claims 6-11 contained subject matter that is optionally recited. Each of claims 6-11 include a conditional statement, whereby a particular node update type that is "permitted only if..." or "permitted only when..." one or more conditions are present. Claims 6-11 are dependent claims that depend on claim 1. Claims 6-11 add elements *in addition to* the elements of claim 1. The clauses "permitted only if..." or "permitted only when..." that are found in claims 6-11 are not optionally recited, but rather, specify certain *affirmative* conditions under which certain update operations are performed. The update operation specified in claim 1, is not recited conditionally. In addition, the update operation specified in each claim 6-11 is performed *whenever* the conditional clause is satisfied. These claims are not indefinite and Applicants respectfully request withdrawal of this rejection.

Section 101 Rejection

Claims 1-4, 7-10 and 12-19 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. The Examiner asserts that the claims do not provide a useful, concrete and tangible result. To the contrary, however, by their preamble and by the body of each claim, the claims all produce a determination (e.g., an indication) of whether an update to an XML document can be reflected in an underlying relational database based on an assigning category. Applicants submit that this is a useful, concrete and tangible result.

The Examiner asserts that “transformation of data is not a physical transformation.” This is contrary to well-accepted case law. The Supreme Court has clearly stated that the “[t]ransformation and reduction of an article 'to a different state or thing' is the clue to patentability of a process claim.” *Gottshalk v. Benson*, 409 U.S. 63, 70, 175 U.S.P.Q. (BNA) 676 (1972). In other words, claims that require some kind of *transformation* of subject matter, which has been held to *include intangible* subject matter, such as *data* or signals, that are representative of or constitute physical activity or objects have been held to comply with Section 101. *See, for example, In re Warmerdam*, 31 U.S.P.Q.2d (BNA) 1754, 1759 n.5 (Fed. Cir. 1994) or *In re Schrader*, 22 F.3d 290, 295, 30 U.S.P.Q.2d (BNA) 1455, 1459 n.12 (Fed. Cir. 1994).

Applicants respectfully request withdrawal of the Section 101 rejection

Independent Claims 1, 12 and 16

Independent claims 1, 12 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Barsalou et al. in view of Wang et al. With regard to claim 1, for example, the Examiner asserts that Barsalou et al., as modified by Wang et al., teaches assigning at least one of a plurality of categories to each of said nodes, wherein said plurality of categories are based on a cardinality relationship indicated by one or more correlation predicates and one or more foreign key constraints in said underlying relational database; and determining whether said update to said XML document can be reflected in said underlying relational database based on said assigning category.

Applicants submit herewith an affidavit under 37 C.F.R. §1.131. The affidavit is signed by all of the inventors named on the present application. The affidavit and the exhibits attached thereto evidence the reduction to practice of an invention falling within independent claims 1, 12 and 16 at least as early as November 14, 2002, and thus prior to the September, 2003 publication date of the Wang reference. Applicants are therefore entitled to overcome the §103(a) rejection. Applicants respectfully request the withdrawal of the rejection of independent claims 1, 12 and 16.

Dependent Claims 2-11, 13-15 and 17-19

Claims 2-11, 13-15 and 17-19 are dependent on independent claims 1, 12 and 16, and are therefore patentably distinguished over Barsalou et al. and Wang et al., alone or in combination, because of their dependency from independent claims 1, 12 and 16 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

All of the pending claims following entry of the amendments, i.e., claims 1-19, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below

The Examiner's attention to this matter is appreciated

Respectfully submitted,



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